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Online submission: <http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>

COMMENTS ON JUNE 21 WORKSHOP TO DISCUSS POSSIBLE REVISIONS TO THE CAP-AND-TRADE REGULATION

Dentons US LLP, on behalf of Foam Supplies, Inc. and True Manufacturing Co., Inc., submits this comment in response to the workshop held June 21 and to memorialize our comments made then. We appreciate the outreach by ARB staff to solicit informal comments before ARB begins a formal comment process. We stand by our prior comments, dated March 15, and May 9, 2018, and wish to memorialize the comments we made during the June 21 workshop.

We continue to urge ARB to add new methodologies to those currently approved in order to generate quality offsets. The staff presentation and discussion at the June 21 workshop, like the April 26 workshop, demonstrate the importance of new methodologies and especially version 2.0 of the “Methodology for Transition to Advanced Formulation Blowing Agents in Foam Manufacturing and Use” (“FBA Methodology”).¹

The June 21 staff presentation demonstrated: [1] that some individuals and groups are using the DEBS language to restrict the applicability of accepted methodologies and even criticize in-state projects because all the reduced GHG emissions are just being used to offset in-state emissions - they are not additional; and [2] of all the offset credits issued to date from the six existing authorized methodologies, only 20% come from forestry and livestock projects in California. Clearly, ARB needs to expand the potential activities to receive offsets.

The FBA Methodology is much more robust and has substantial co-benefits. It can be used for projects in California, including spray foam insulation, XPS boardstock, commercial and residential refrigeration and freezers, and marine flotation, and, because it does not credit emission reductions from end-of-life, 3/4 to 2/3 of the emission reductions of HFCs can be considered additional. The following table uses the actual formulae in the FBA Methodology and demonstrates the substantial HFCs still remaining at EOL. Not only does it not recognize all of the GHG reductions from replacing HFCs in the products being manufactured, it avoids the impact on landfills and

¹ Version 2.0 was published in late April. Eleven entities, beside Dentons US LLP, have thus far recommended ARB to consider the FBA Methodology as an additional approved offset methodology: [PG & E, Element Markets, Accella, Praxair, Air Quality Consultants, First Environment, Honeywell, Owens Corning, Foam Supplies, True Manufacturing, American Carbon Registry (ACR)]

groundwater which result from end of life disposal.² Moreover, by preventing the off-gassing of HFCs during the useful life of products made with eligible blowing agents, the methodology also protects against human exposure during the life of the appliance or structure.

Two observations are warranted:

- For eligible applications under the FBA 2.0 Methodology, there is a substantial environmental benefit beyond the credited amount; and
- New blowing agents addressed by FBA 2.0 degrade rapidly and would not cause groundwater or other landfill related contamination.

The following table is extracted from Tables 4 and 5 of the FBA 2.0 Methodology

Foam Application	Product life (in years)	1st year loss (%)	Annual loss (%)	End of life (%) 100% less [1st + 9 yrs]
XPS - HFC 134a	50	25	0.75%	68.25%
XPS - HFC 152a	50	50	25	0
Two-component rigid spray (245fa)	50	15%	1.5%	71.5%
Rigid PUF residential (134a)	15	7	0.5	88.5%
Rigid PUF injected residential (245fa)	15	4	0.25%	93.75%
Rigid PUF injected foam (all using 134a)	15	12.5%	0.5%	83%
Rigid PUF injected ³ (all using 245fa)	15	10%	0.5%	85.5%

² Nearly all of HFCs remaining at end of life are released in landfills - very few are actually captured and destroyed.

³ Rigid PUR Injected is the manufacturing technique used for several end uses addressed by FBA 2.0: Retail Food Refrigeration, Industrial Refrigeration, Refrigerated Transport, HVAC, Doors, and Marine Flotation.

The FBA 2.0 Methodology can generate project-based offsets from ten different manufacturing end-uses. The scope of the methodology increases the opportunities for offsets that could meet the DEBS criteria. Those end-uses are not under the cap and hence these reductions are beyond those which regulations currently require. The reductions are for HFCs, a potent Short-Lived Climate Pollutant (SLCP). The offsets are calculated based on IPCC created emission factors and relate to end-uses for which there has been minimal adoption of any low-GWP blowing agents. The project offsets are based upon actual production information, representing a mass balance approach with great certainty, accuracy and precision. There is essentially no risk of invalidation.

Dentons also recommends ARB adopt version 2.0 of the Advanced Refrigeration Systems Methodology (ARS Methodology) currently under review with ACR. This methodology has gone through the public comment period and is now undergoing ACR Peer Review. We expect it to be published by the end of July and to include a tool to recognize ARB-approved refrigerants. It will provide an incentive for the use of very low GWP refrigerants, such as propane with a GWP of 3.

These two methodologies would address some recent legislative goals. The FBA Methodology addresses many of the concerns expressed in last year's session relating to environmental justice by providing support to manufacturing activities in urban areas. The ARS Methodology provides recognition and incentives to go far lower (in terms of GWP for refrigerants) than required by ARB's recent rule to require SNAP-levels for refrigerants. Both methodologies reduce HFCs (the most potent SLCP class) and thus support California reaching the aggressive SB 1398 goal. As ARB is well aware that SLCPs have a more potent near term GHG effect than CO₂, pound for pound, these methodologies have a far more immediate benefit than those that do not reduce SLCPs.

We respectfully urge ARB to formally consider adding both methodologies to its list of approved offset protocols.

Respectfully,

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